CONTENTS

JANUARY. No. 1

A Study of the Chemical and Physical Properties of Remade Milk. L. S. Palmer and C. D. Dahle..... 1
The Determination of Yeasts and Oidia in Cream and Butter. W. Redfield 14
The Stage of Lactation as a Factor in the Variation of the Per Cent of Fat in Cow's Milk. Arthur Ragsdale and Charles W. Turner..... 22
Coconut Meal, Gluten Feed, Peanut Meal and Soybean Meal as Protein Supplements for Dairy Cows. Andrew C. McCandlish and Earl Weaver.... 27
Fat Analysis of Milk Powder. G. C. Supplee and B. Bellis..... 39
Is Lipase a Normal Constituent of Cow's Milk? Leroy S. Palmer..... 51
Proof of the Presence of Lipase in Milk and a New Method for the Detection of the Enzyme. Frank E. Mice and Alton L. Markley..... 64
Studies in the Control of a Municipal Milk Supply. Ira Vaughan Hiscock. 83
A Color Test for "Remade" Milk and Cream. Oscar L. Evenson..... 97
Methods of Caring for Milking Machine Tubes. Robert S. Breed..... 102
Outlines for a Study of Milk Production Costs. John A. Hopkins, Jr..... 110

MARCH. No. 2

President's Address Annual Meeting, American Dairy Science Association. C. H. Eckles..... 131
Proceedings of Annual Meeting of American Dairy Science Association..... 143
Organization Directory for 1922, American Dairy Science Association..... 198
Bitter Milk of Advanced Lactation—A Lipase Fermentation. L. S. Palmer 201
The Effect of Temperature on the Percentage of Fat in Milk. Arthur C. Ragsdale and Samuel Brody..... 212
Bacterial Content of Milk Powder. G. C. Supplee and V. J. Ashbaugh.... 216
The Improvement of Quality in Milk Through the Efforts of College Extension Service. James D. Brew..... 229
The Structure of Powdered Milk and Its Possible Relation to the Keeping Quality of Whole Milk Powders. L. S. Palmer and C. D. Dahle.... 240
Dairy Notes..... 246

MAY. No. 3

The Identification of the Bovine by Means of Nose Prints. W. E. Peterson 249
Is a Preliminary Dry Milking Essential in Semi-Official Tests? J. B. Fith, R. B. Becker and P. C. McGilliard..... 259
The Condensation Process of Preparing an Ice Cream Mix. R. W. Peterson and P. H. Tracy..... 273
Effect of Steaming Upon the Germ Life of Milk Cans. H. A. Harding..... 282
New Method of Balancing Rations. B. I. Masurovsky..... 291

Studies in the Growth and Nutrition of Dairy Calves. A. C. McCandlish 301
Review of Foreign Literature. S. H. Harvey 321
Book Review 327
Announcements 328
Dairy Notes 329

JULY. No. 4

A Comparison of Early, Medium, and Late Varieties of Silage Corn for Milk Production. G. C. White, et al 333
Studies in the Growth and Nutrition of Dairy Calves. A. C. McCandlish .. 348
Yeast and Mold Counts and Their Relation to Pasteurization. B. A. Stiritz, 362
Laboratory Supervision of Pasteurization Plants. Ira Vaughan Hiscock .. 372
A Note on the Weinzirl Anaerobic Spore Test for Determining Manurial Pollution of Milk. James R. Hudson and Fred W. Tanner 377
The Relationship between the Hydrogen Ion Concentration and the Bacterial Content of Commercial Milk. Edwin W. Schultz, Alberta Marx and Harold J. Beaver 383
The Physical Analysis of Dry Milk. R. M. Washburn 388
A Method for the Determination of Amino Nitrogen and Ammonia in Cream and Butter. L. W. Ferris 399
The Danger of Improperly Capped Milk Bottles. J. G. Jackley 406
The Milking Machine an Important Factor in Milk Quality. J. D. Brew 412

SEPTEMBER. No. 5

The Causes of Leaky Butter. A. C. Dahlberg 421
Influence of Certain Factors on the Methylene Blue Reduction Test for Determining the Number of Bacteria in Milk. E. G. Hastings, Audrey Davenport, and W. H. Wright 438
The Copper Content of Cow's Milk. G. C. Supplee and B. Bellis 455
Methods of Measuring the Volume of Cream on Milk. H. A. Harding, F. W. Kelly and E. S. Chrisler 468
A Weight-Height-Age Curve as a Measure of the State of Nutrition and of Growth of the Dairy Cow. Samuel Brody and Arthur C. Ragsdale 479
Actinomyces in Milk with Special Reference to the Production of Undesirable Odors and Flavors. Carl R. Fellers 485
The Care of Morning Milk before Pasteurization. Harold Macy 502
Loss in the Grain of Corn in Storage as Silage. W. L. Gaines 507
Review of Foreign Dairy Literature 510
Dairy Notes—Members of American Dairy Science Association, etc 518

NOVEMBER. No. 6

The Heat Coagulation of Milk. H. H. Sommer and E. B. Hart 525
Seasonal Variations of the Per Cent of Fat in Cow's Milk. Arthur C. Ragsdale and Charles W. Turner 544

A Method for the Quantitative Determination of Gelatine in Ice Creams. L. W. Ferris 555
A Metabolism Crate for Calves and Other Small Ruminants. A. C. McCandlish and Fordyce Ely 565
Bacteria Counts of Milk Powder as Obtained by the Microscopic Method. G. C. Supplee and V. J. Ashbaugh 570
Index to Volume V 583